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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,374	11/14/2001	Michael S. Jensen	ECO3	5761

7590 06/17/2004

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EXAMINER

THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,374

Applicant(s)

JENSEN ET AL.

Examiner

Camie S Thompson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 10 is/are rejected.
- 7) ☒ Claim(s) 4-9 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Applicant's amendment and accompanying remarks filed March 1, 2004 have been acknowledged.
2. Examiner acknowledges amended claim 1.
3. Examiner acknowledges newly added claims 12-14.
4. Original claims 1-11 were directed towards a sandwich. Newly added claims 12-14 are directed towards a method of making a sandwich panel.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 12-14 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Applicant must file a divisional application or file a new application in order to prosecute the method for making a sandwich panel.

5. The rejection of claims 1 and 4-6 under 35 U.S.C. 103(a) as being unpatentable over Jasperson, U.S. Patent Number 4,357,384 in view of Bair, U.S. Patent Number 3,775,916 and in further view of Rizk, U.S. Patent Number 4,620,404 is withdrawn due to applicant's argument.
6. The rejection of claims 1, 4 and 8-9 under 35 U.S.C. 103(a) as being unpatentable over Jasperson, U.S. Patent Number 4,357,384 in view of Bair, U.S. Patent Number 3,775,916 and in further view of Siler, U.S. Patent Number 5,826,389 is withdrawn due to applicant's argument.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Jasperson, U.S. Patent Number 4,357,384.

Jasperson discloses a composite structure that includes first and second building panels that have a layer of rigid insulation sandwiched between as per instant claim 1 (see abstract, column 1, lines 15-31 and lines 50-55). Additionally, the Jasperson reference discloses an overlying cementitious layer (support) adhered to the insulation as per instant claim 1 (see column 1, lines 25-35). The reference also discloses that the cementitious layer serves to hold the insulation layer against high wind loads (see column 2, lines 53-63). Column 2, lines 49-52 of the reference disclose that the rigid insulation can be blocks of insulation as per instant claim 10. Also, Jasperson discloses that the panels can be formed of cementitious or concrete products as per instant claim 1 (see column 2, lines 5-27). It is disclosed in column 3, lines 54-63 that the structure is designed to have a height as high as several stories. The panels of the Jasperson reference can have a thickness up to no more than 1 inch as per instant claim 2 (see column 6, lines 6-23).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jasperson, U.S. Patent Number 4,357,384.

Jasperson discloses a composite structure that includes first and second building panels that have a layer of rigid insulation sandwiched between as per instant claim 1 (see abstract, column 1, lines 15-31 and lines 50-55). Additionally, the Jasperson reference discloses an overlying cementitious layer (support) adhered to the insulation as per instant claim 1 (see column 1, lines 25-35). The reference also discloses that the cementitious layer serves to hold the insulation layer against high wind loads (see column 2, lines 53-63). Also, Jasperson discloses that the panels can be formed of cementitious or concrete products as per instant claim 1 (see column 2, lines 5-27). The reference discloses a structural panel that is 7' x 2' as per instant claim 3 (see column 7, lines 29-49). It is disclosed in column 3, lines 54-63 that the structure is designed to have a height as high as several stories. Jasperson does not specifically disclose the width and thickness of the structure. However, the reference does disclose that the composite structure can be used a new roof or wall. The width and thickness of the structure affect the load bearing features on the composite. However, these features are optimizable. Discovery of optimum values of a result effective variable involves only routine skill in the art in re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Therefore, it would have been obvious to one of ordinary skill in the art to have a width greater than 8 feet and a thickness between 3.5 and 5 inches in order to have a roofing or wall structure that is able to sustain heavy loads.

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11. Claims 1, 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jasperson, U.S. Patent Number 4,357,384 in view of Bair, U.S. Patent Number 3,775,916. Jasperson discloses a composite structure that includes first and second building panels that have a layer of rigid insulation sandwiched between as per instant claim 1 (see abstract, column 1, lines 15-31 and lines 50-55). Additionally, the Jasperson reference discloses an overlying cementitious layer (support) adhered to the insulation as per instant claim 1 (see column 1, lines 25-35). The reference also discloses that the cementitious layer serves to hold the insulation layer against high wind loads (see column 2, lines 53-63). Also, Jasperson discloses that the panels can be formed of cementitious or concrete products as per instant claim 1 (see column 2, lines 5-27). The Jasperson reference does not disclose upper and lower border beams for the support frame that is strengthened by a reinforcing bar as per instant claims 4 and 7. Bair discloses a multi-layer wall panel that has a sandwich construction comprising an outer layer of masonry building units with a principally load-bearing of cementitious material and an insulating layer (see abstract). The Bair reference also discloses beams that are along the upper and lower sides of the panel and encompass the insulating layer (see Bair: Figure 4, column 1, lines 51-68 and column 2, line 55-column 3, line 5). The upper and lower beams receive the panel for mounting. Therefore, it would have been obvious to one of ordinary skill in the art to have upper and lower beams for the support frame in order to allow the panel to receive fasteners for mounting (see Bair: column 2, lines 62-68). Figure 4 of the Bair reference discloses a reinforcing bar. The addition of a reinforcing bar affects the strength of the panel. Therefore, it would have been obvious to one of ordinary skill in the art to have a reinforcing bar in each border beam in order to strengthen each beam.

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12. Claims 1 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jasperson, U.S. Patent Number 4,357,384 in view of Schupack, U.S. Patent Number 4,617,219. Jasperson discloses a composite structure that includes first and second building panels that have a layer of rigid insulation sandwiched between as per instant claim 1 (see abstract, column 1, lines 15-31 and lines 50-55). Additionally, the Jasperson reference discloses an overlying cementitious layer (support) adhered to the insulation as per instant claims 1 and 4 (see column 1, lines 25-35). The reference also discloses that the cementitious layer serves to hold the insulation layer against high wind loads (see column 2, lines 53-63). Also, Jasperson discloses that the panels can be formed of cementitious or concrete products as per instant claim 1 (see column 2, lines 5-27). The Jasperson reference does not disclose the cementitious mixture as per instant claim 11. Schupack teaches reinforced cement structures such as panels in the sandwich construction (see abstract and column 1, lines 36-47). The Schupack reference also teaches the composition of the cementitious mixture. Schupack teaches that the composition can include a polypropylene fiber, cement, sand, water and superplasticizer (see column 4, lines 1-5 and Example 2). Schupack does not disclose the amounts instantly claimed. The use of a lightweight, high compression strain capacity cement matrix provides bendability characteristics. Discovery of optimum values of a result effective variable involve only routine skill in the art in re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Therefore, it would have been obvious to one of ordinary skill in the art to have a cementitious mixture compositions with 42.3% cement, 42.3% sand, 1% polypropylene fiber, 0.1% superplasticizer and about 14.3% water in order to provide high compression strength (see column 11, lines 29-43 of the Schupack reference).

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13. Claims 5-6 and 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

14. Applicant's arguments filed March 1, 2004 have been fully considered but they are not persuasive. Applicant argues that the Jasperson reference does not have all the elements of the present invention. Applicant argues that the Jasperson reference does not have the same arrangement as the instant invention. The Jasperson reference discloses a composite structure wherein the rigid insulation layer is sandwiched between the first and second face panel. The reference also discloses that the support (cementitious layer) is adhered to the insulation layer. Thus, the support layer would be continuous with the first and second panels. Applicant argues that the method used in the instant application makes the invention different from the Jasperson invention. The method in which the cementitious support frame is made continuous to the first and second panels does not make it a different invention. Both Jasperson and applicant have a first and second face with a rigid insulation layer wherein a cementitious support layer is adhered to the insulation. Applicant argues that the combination of the Bair and Jasperson references is improper. Applicant argues that the Bair reference does not disclose a support frame that is located between the first and second panels. It is disclosed in the abstract of the Bair reference that a frame is mounted about the edges of one or more panels. In Bair, the support frame can be located between the first and second panels. Applicant argues the combination of the Jasperson and Schupack references. Applicant argues that the Schupack reference does not disclose a

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support frame. The Schupack reference discloses reinforced cement structures such as panels in the sandwich construction, as does Jasperson. Thus, Jasperson and Schupack are analogous art. The cementitious mixture of the Schupack reference is used as a support in sandwich panels. The cementitious composition comprising polypropylene fiber, cement, sand water and superplasticizer has a high compressions strain capacity in order to withstand loads. Therefore, the combination is not without motivation.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly, can be reached at (571) 272-1526. The fax phone number for the Group is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700

A handwritten signature in cursive script that reads "Cynthia H. Kelly". The signature is written in black ink and is positioned below the printed name and title.